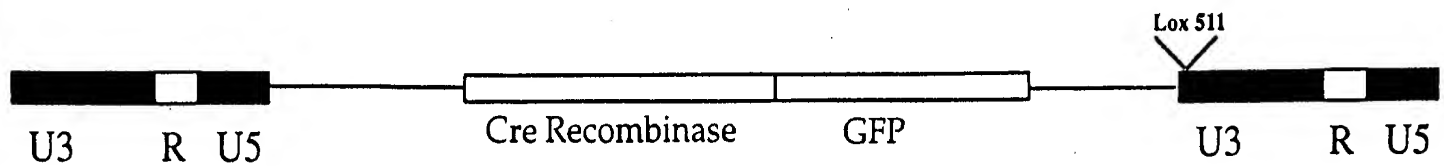
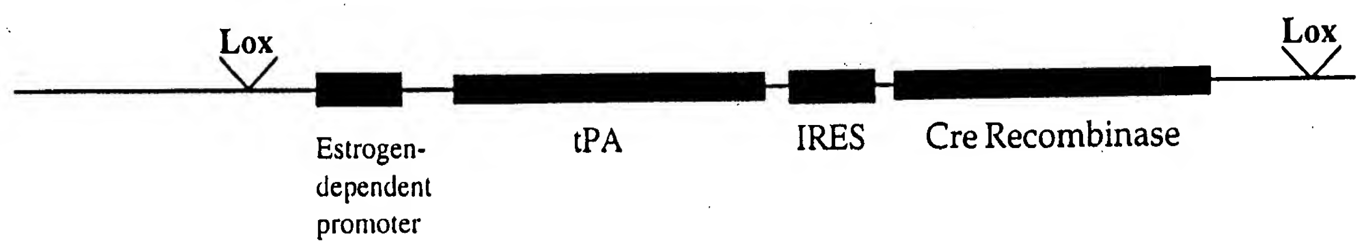


Fig. 1



Lox
Estrogen-
dependent
promoter
tPA
IRES
Cre Recombinase
Lox

Fig. 2

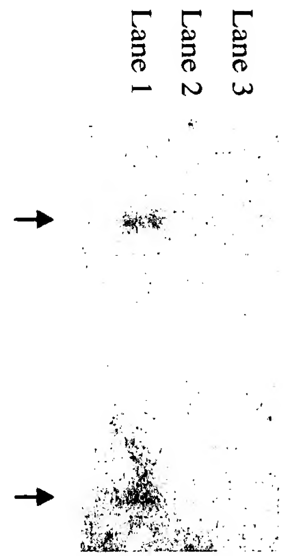
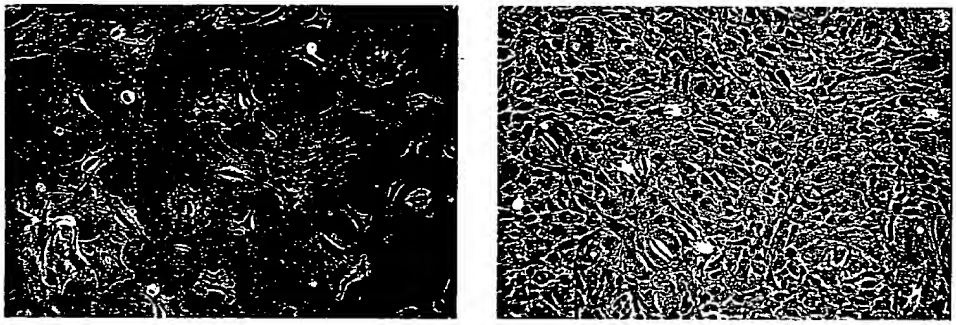


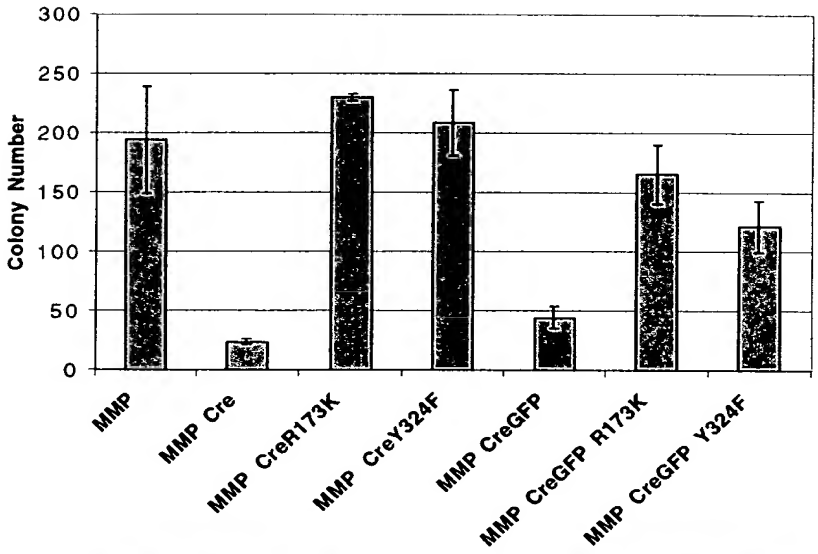
Fig. 3: Southern blot of DNA from an indicator cell line infected with cre-recombinase encoding viruses. The probe is specific for cre. Lane 1 is DNA from cells infected with a virus encoding a cre-GFP fusion but no lox sites; lane 2 infected with a virus encoding a cre-GFP fusion and a Lox 511 site in U3 (See Fig. 1), and lane 3 mock-infected cells. The restriction digestion is with Eco RV in all cases. The arrows indicate the sizes of the expected restriction products. The absence of bands in lane 2 indicates highly efficient self- excision; the indicator cell lines had equivalent numbers of beta-galactosidase positive cells (data not shown), indicating that both viruses were highly efficient at cre-mediated recombination at a target elsewhere in the genome.

4A

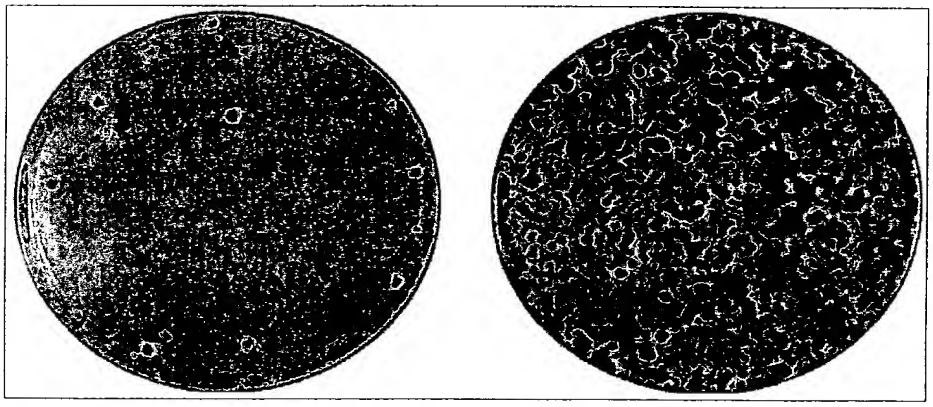


MMPCreGFP GFP

4B

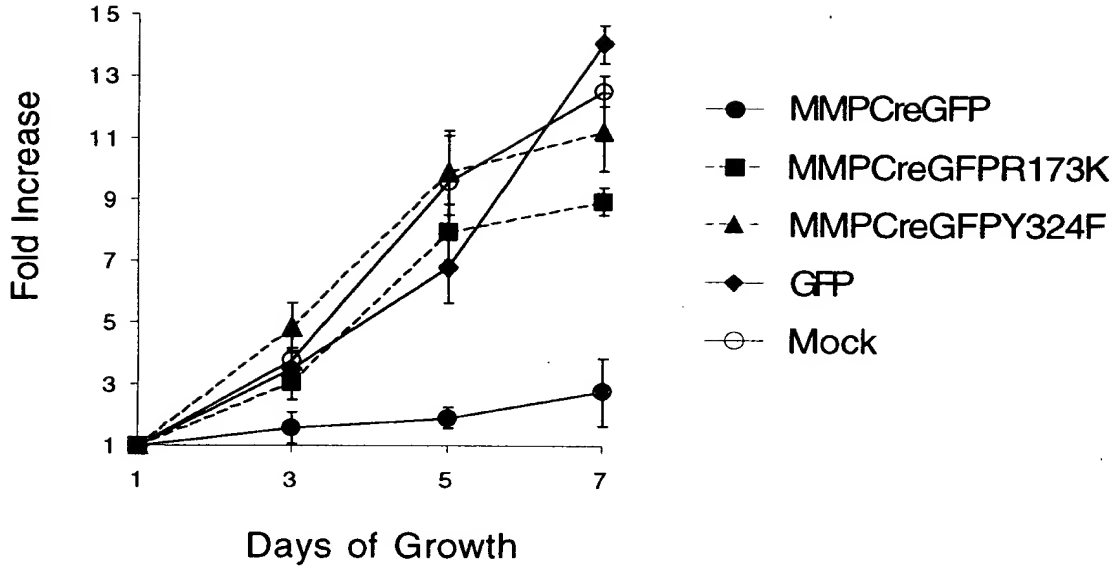


4C

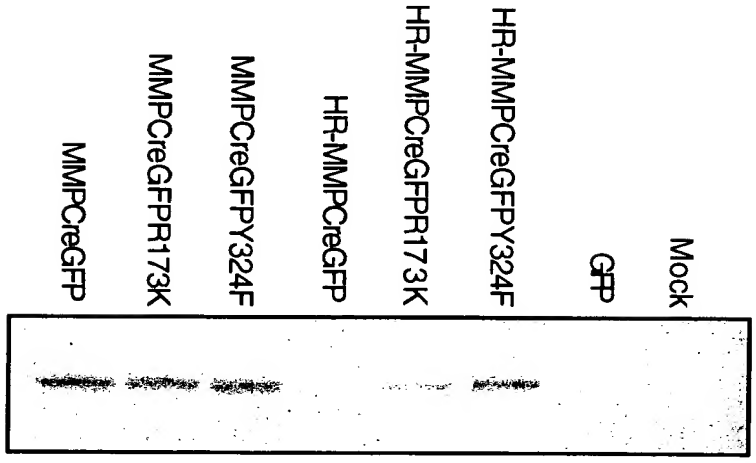


MMPCre + Neo MMPCreR173K + Neo

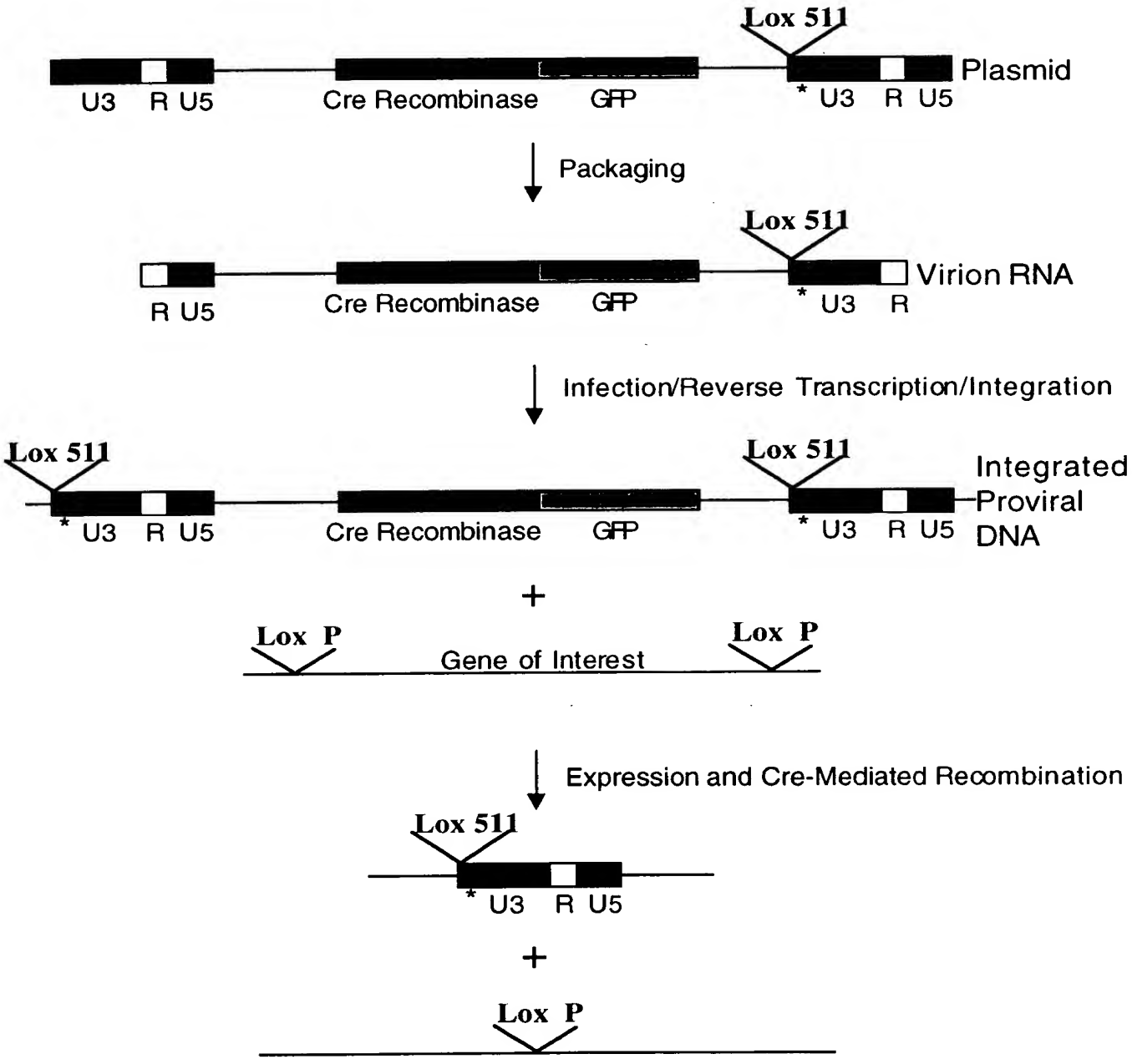
5A


Fold Increase
15
13
11
9
7
5
3
1
1
3
5
7
Days of Growth
MMPCreGFP
MMPCreGFPR173K
MMPCreGFPY324F
GFP
Mock

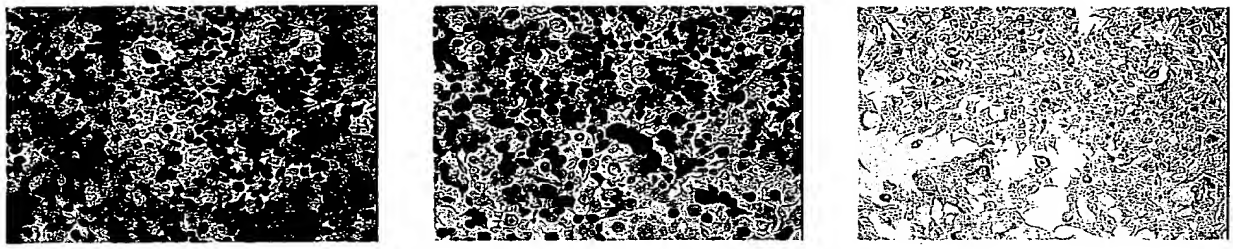
5B


MMPCreGFP
MMPCreGFPR173K
MMPCreGFPY324F
HR-MMPCreGFP
HR-MMPCreGFPR173K
HR-MMPCreGFPY324F
GFP
Mock

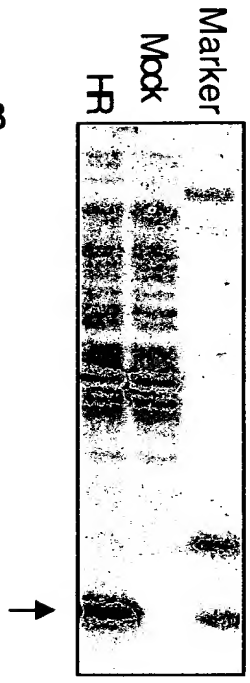
6


Lox 511
U3 R U5
Cre Recombinase
GFP
* U3 R U5
Plasmid
Packaging
Lox 511
R U5
Cre Recombinase
GFP
* U3 R
Virion RNA
Infection/Reverse Transcription/Integration
Lox 511
Lox 511
* U3 R U5
Cre Recombinase
GFP
* U3 R U5
Integrated Proviral DNA
+
Lox P
Gene of Interest
Lox P
Expression and Cre-Mediated Recombination
Lox 511
* U3 R U5
+
Lox P

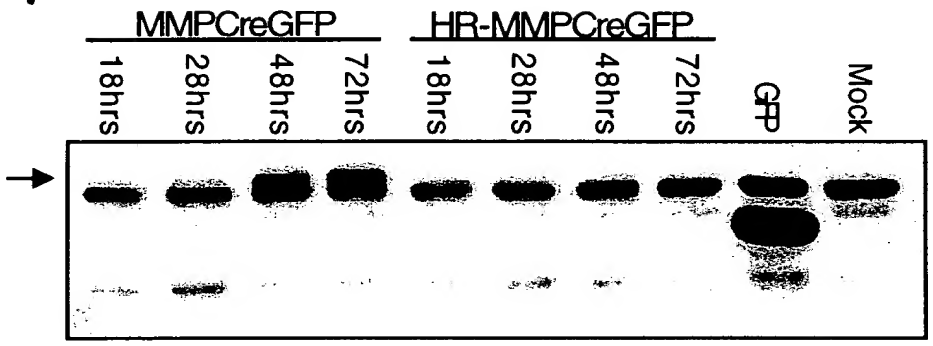
7A


HR-MMPCreGFP
MMPCreGFP
GFP

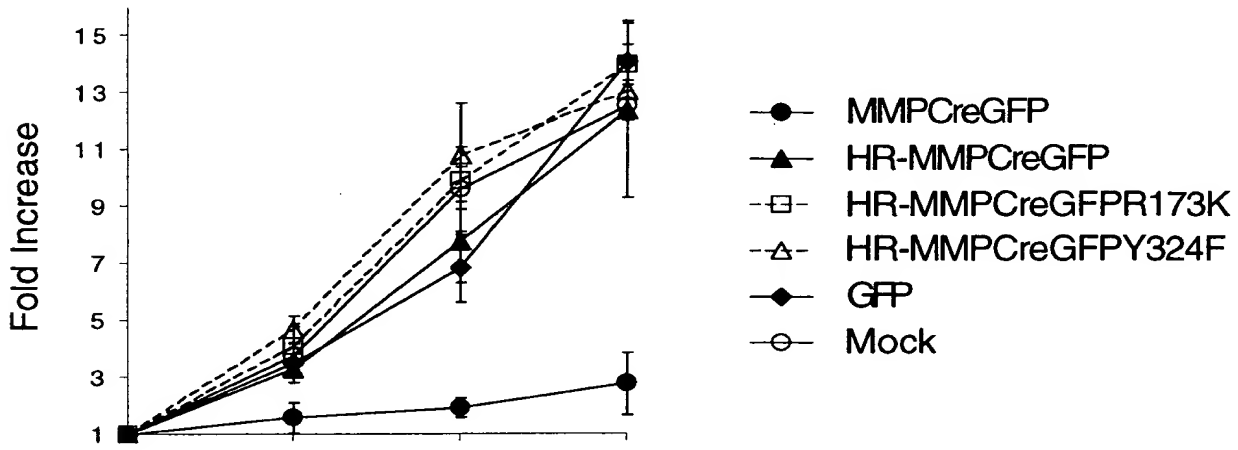
7B


HR
Mock
Marker

7C


MMPCreGFP
HR-MMPCreGFP
18hrs
28hrs
48hrs
72hrs
18hrs
28hrs
48hrs
72hrs
GFP
Mock

7D


Fold Increase
15
13
11
9
7
5
3
1
MMPCreGFP
HR-MMPCreGFP
HR-MMPCreGFPR173K
HR-MMPCreGFPY324F
GFP
Mock

8